

PATENT CLAIMS:

1. A pressure-relief valve for oil-filled transformers and tap changers, having a housing flange provided with a throughgoing port closable by a spring-loaded valve body and a seal in a rest position, a stationary spring plate being provided above the valve body, at least one prestressed spring being braced between the spring plate and the valve body such that it bears with its upper end on a lower face of the spring plate and with its lower end on the upper face of the valve body and wherein a cover is provided that is formed with at least one vent opening, characterized in that

the cover is a cup-shaped housing (18) completely containing the entire pressure-relief valve, and that

the housing (18) is directly secured to the housing flange (1).

2. The pressure-relief valve according to claim 1, characterized in that

the housing (18) is secured in place by at least one pusher pin (44) outwardly spring-biased in the housing flange (1) and fitting in an opening in a cup-shaped side wall (27) of the housing (18).

3. The pressure-relief valve according to claim 1 or 2, characterized in that

a vertical and upwardly extending feedthrough plate (16) is provided laterally on the housing flange (1) and that the housing (18) is also screwed to the feedthrough plate (16).

4. The pressure-relief valve according to one of claims 1 to 3, characterized in that

a vent passage (49) is formed in the housing flange (1) opening into a horizontal threaded bore (51),

an end of the threaded bore (51) is formed as a conical seat (50), and

a vent screw (52) threadable into the threaded bore (51) has an inner end sealingly fittable to the seat (52) of the bore (51).

5. The pressure-relief valve according to one of claims 1 to 4, characterized in that

at least one vent opening (26) is formed on a cup-shaped side wall (27) of the housing (18).

6. The pressure-relief valve according to one of claims 1 to 5, characterized in that

the vent opening (26) is provided on a side of the housing (18) opposite the feedthrough plate (16).

7. The pressure-relief valve according to one of claims
1 to 6,
characterized in that

at least one of the vent openings is formed as a vent
slot (35, 36, or 37).

8. The pressure-relief valve according to claim 7,
characterized in that

each vent slot (35, 36, or 37) is protected by an outside
vent hood (38, 29, 40).

9. The pressure-relief valve according to one of claims
1 to 8,
characterized in that

inside the housing (18) there is at least one standard
electrical switch (24) that is operated by an indicating pin (14)
on deflection of the valve body (4), and that
a cable (25) of the switch (24) extends out through a cable
feedthrough (21).

10. The pressure-relief valve according to claim 9,
characterized in that

the switch (23) is mounted on the spring plate (11) by at
least one upwardly extending stud assembly (42, 43).

11. The pressure-relief valve according to claim 9 or 10,
characterized in that

a mushroom-shaped head (33) is provided on an upper end
of the indicating pin (15) projecting out of the housing (18) for
protective purposes.

12. The pressure-relief valve according to one of claims 9 to 11,
characterized in that

a space occupied by the electric switch (24) and its
cable (25) is separated from the space of the spring plate (11).

13. The pressure-relief valve according to one of claims 1 to 12,
characterized in that

the vent opening (26) is constructed such that it
conforms to the shape of the cup-shaped side wall (26) of the
housing (18).

14. The pressure-relief valve according to one of claims 1 to 13,
characterized in that

the seal (5) is beveled on its seal face (5.2) turned
toward the valve body (4).